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[Report No. 109-358]

To improve efficiency in the Federal Government through the use of high-performance green buildings, and for other purposes.

IN THE SENATE OF THE UNITED STATES

JUNE 28, 2006

Mr. JEFFORDS (for himself, Ms. SNOWE, Mr. LAUTENBERG, Mr. CHAFEE, Mrs. BOXER, Mrs. FEINSTEIN, Mrs. CLINTON, Mr. LIEBERMAN, Mr. OBAMA, Mr. MENENDEZ, Mr. WYDEN, and Mr. BINGAMAN) introduced the following bill; which was read twice and referred to the Committee on Environment and Public Works

NOVEMBER 13, 2006

Reported by Mr. INHOFE, with an amendment

[Strike out all after the enacting clause and insert the part printed in *italic*]

A BILL

To improve efficiency in the Federal Government through the use of high-performance green buildings, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

1 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

2 (a) **SHORT TITLE.**—This Act may be cited as the
 3 “High-Performance Green Buildings Act of 2006”.

4 (b) **TABLE OF CONTENTS.**—The table of contents of
 5 this Act is as follows:

Sec. 1. Short title; table of contents.

Sec. 2. Definitions.

TITLE I—OFFICE OF HIGH-PERFORMANCE GREEN BUILDINGS

Sec. 101. Oversight.

Sec. 102. Office of High-Performance Green Buildings.

Sec. 103. Green Building Advisory Committee.

Sec. 104. Public outreach.

Sec. 105. Research and development.

Sec. 106. Budget and life-cycle costing and contracting.

Sec. 107. Authorization of appropriations.

TITLE II—HEALTHY HIGH-PERFORMANCE SCHOOLS

Sec. 201. Definitions.

Sec. 202. Grants for healthy school environments.

Sec. 203. Federal guidelines for siting of school facilities.

Sec. 204. Environmental health program.

Sec. 205. Authorization of appropriations.

TITLE III—STRENGTHENING FEDERAL LEADERSHIP

Sec. 301. Incentives.

Sec. 302. Federal procurement.

Sec. 303. Federal green building performance.

TITLE IV—DEMONSTRATION PROJECT

Sec. 401. Coordination of goals.

Sec. 402. Authorization of appropriations.

6 **SEC. 2. DEFINITIONS.**

7 In this Act:

8 (1) **ADMINISTRATOR.**—The term “Adminis-
 9 trator” means the Administrator of General Serv-
 10 ices.

1 ~~(2) COMMITTEE.~~—The term “Committee”
 2 means the Green Building Advisory Committee es-
 3 tablished under section ~~103(a)~~.

4 ~~(3) DIRECTOR.~~—The term “Director” means
 5 the individual appointed to the position established
 6 under section ~~101(a)~~.

7 ~~(4) FEDERAL FACILITY.—~~

8 ~~(A) IN GENERAL.~~—The term “Federal fa-
 9 cility” means any building or facility the in-
 10 tended use of which requires the building or fa-
 11 cility to be—

12 ~~(i) accessible to the public; and~~

13 ~~(ii) constructed or altered by or on be-~~
 14 half of the United States.

15 ~~(B) EXCLUSIONS.~~—The term “Federal fa-
 16 cility” does not include a privately-owned resi-
 17 dential or commercial structure that is not
 18 leased by the Federal Government.

19 ~~(5) HIGH-PERFORMANCE GREEN BUILDING.—~~
 20 The term “high-performance green building” means
 21 a building that, during its life-cycle—

22 ~~(A) reduces energy, water, and material re-~~
 23 source use;

24 ~~(B) improves indoor environmental quality~~
 25 including, reducing indoor pollution, improving

1 thermal comfort, and improving lighting and
2 acoustic environments that affect occupant
3 health and productivity;

4 (C) reduces negative impacts on the envi-
5 ronment throughout the life-cycle of the build-
6 ing, including air and water pollution and waste
7 generation;

8 (D) increases the use of environmentally
9 preferable products, including biobased, recycled
10 content, and nontoxic products with lower life-
11 cycle impacts;

12 (E) increases reuse and recycling opportu-
13 nities;

14 (F) integrates systems in the building;

15 (G) reduces the environmental and energy
16 impacts of transportation through building loca-
17 tion and site design that support a full range
18 of transportation choices for users of the build-
19 ing; and

20 (H) considers indoor and outdoor effects of
21 the building on human health and the environ-
22 ment, including—

23 (i) improvements in worker produc-
24 tivity;

- 1 (ii) the life-cycle impacts of building
 2 materials and operations; and
 3 (iii) other factors that the Office con-
 4 siderers to be appropriate.

5 (6) LIFE-CYCLE.—The term “life-cycle”, with
 6 respect to a high-performance green building, means
 7 all stages of the useful life of the building (including
 8 components, equipment, systems, and controls of the
 9 building) beginning at conception of a green building
 10 project and continuing through site selection, design,
 11 construction, landscaping, commissioning, operation,
 12 maintenance, renovation, deconstruction or demoli-
 13 tion, removal, and recycling of the green building.

14 (7) LIFE-CYCLE ASSESSMENT.—The term “life-
 15 cycle assessment” means a comprehensive system
 16 approach for measuring the environmental perform-
 17 ance of a product or service over the life of the prod-
 18 uct or service, beginning at raw materials acquisition
 19 and continuing through manufacturing, transpor-
 20 tation, installation, use, reuse, and end-of-life waste
 21 management.

22 (8) LIFE-CYCLE COSTING.—The term “life-cycle
 23 costing”, with respect to a high-performance green
 24 building, means a technique of economic evaluation
 25 that—

(A) sums, over a given study period, the costs of initial investment (less resale value), replacements, operations (including energy use), and maintenance and repair of an investment decision; and

(B) is expressed—

(i) in present value terms, in the case of a study period equivalent to the longest useful life of the building, determined by taking into consideration the typical life of such a building in the area in which the building is to be located; or

(ii) in annual value terms, in the case of any other study period.

(9) OFFICE.—The term “Office” means the Office of High-Performance Green Buildings established under section 102(a).

TITLE I—OFFICE OF HIGH-PERFORMANCE GREEN BUILDINGS

SEC. 101. OVERSIGHT.

(a) IN GENERAL.—The Administrator shall establish within the General Services Administration, and appoint an individual to serve as Director in, a position in the career-reserved Senior Executive service, to—

1 (1) establish and manage the Office in accord-
2 ance with section 102; and

3 (2) carry out other duties as required under
4 this Act.

5 (b) COMPENSATION.—The compensation of the Di-
6 rector shall not exceed the maximum rate of basic pay for
7 the Senior Executive Service under section 5382 of title
8 5, United States Code, including any applicable locality-
9 based comparability payment that may be authorized
10 under section 5304(h)(2)(C) of that title.

11 **SEC. 102. OFFICE OF HIGH-PERFORMANCE GREEN BUILD-**
12 **INGS.**

13 (a) ESTABLISHMENT.—The Director shall establish
14 within the General Services Administration an Office of
15 High-Performance Green Buildings.

16 (b) DUTIES.—The Director shall—

17 (1) ensure full coordination of high-performance
18 green building information and activities within the
19 General Services Administration and all relevant
20 agencies, including, at a minimum—

21 (A) the Environmental Protection Agency;

22 (B) the Office of the Federal Environ-
23 mental Executive;

24 (C) the Office of Federal Procurement Pol-
25 icy;

- 1 ~~(D) the Department of Energy;~~
2 ~~(E) the Department of Health and Human~~
3 ~~Services;~~
4 ~~(F) the Department of Defense; and~~
5 ~~(G) such other Federal agencies as the Di-~~
6 ~~rector considers to be appropriate;~~
7 ~~(2) establish a senior-level Federal green build-~~
8 ~~ing advisory committee, which shall provide advice~~
9 ~~and recommendations in accordance with section~~
10 ~~103;~~
11 ~~(3) identify and biennially reassess improved or~~
12 ~~higher rating standards recommended by the Com-~~
13 ~~mittee;~~
14 ~~(4) establish a national high-performance green~~
15 ~~building clearinghouse in accordance with section~~
16 ~~104; which shall provide green building information~~
17 ~~through—~~
18 ~~(A) outreach;~~
19 ~~(B) education; and~~
20 ~~(C) the provision of technical assistance;~~
21 ~~(5) ensure full coordination of research and de-~~
22 ~~velopment information relating to high-performance~~
23 ~~green building initiatives under section 105;~~

1 (6) identify and develop green building stand-
2 ards that could be used for all types of Federal fa-
3 cilities in accordance with section 105;

4 (7) establish green practices that can be used
5 throughout the life of a Federal facility;

6 (8) review and analyze current Federal budget
7 practices and life-cycle costing issues; and make rec-
8 ommendations to Congress, in accordance with sec-
9 tion 106; and

10 (9) complete and submit the report described in
11 subsection (c).

12 (c) REPORT.—Not later than 2 years after the date
13 of enactment of this Act, and biennially thereafter, the Di-
14 rector shall submit to Congress a report that—

15 (1) describes the status of the green building
16 initiatives under this Act and other Federal pro-
17 grams in effect as of the date of the report, includ-
18 ing—

19 (A) the extent to which the programs are
20 being carried out in accordance with this Act;
21 and

22 (B) the status of funding requests and ap-
23 propriations for those programs;

24 (2) identifies within the planning, budgeting,
25 and construction process all types of Federal facility

1 procedures that inhibit new and existing Federal fa-
2 cilities from becoming high-performance green build-
3 ings as measured by—

4 (A) a silver rating, as defined by the Lead-
5 ership in Energy and Environmental Design
6 Building Rating System standard established by
7 the United States Green Building Council (or
8 an equivalent rating); or

9 (B) an improved or higher rating standard,
10 as identified by the Committee;

11 (3) identifies inconsistencies, as reported to the
12 Committee, in Federal law with respect to product
13 acquisition guidelines and high-performance product
14 guidelines;

15 (4) recommends language for uniform stand-
16 ards for use by Federal agencies in environmentally
17 responsible acquisition;

18 (5) in coordination with the Office of Manage-
19 ment and Budget, reviews the budget process for
20 capital programs with respect to alternatives for—

21 (A) restructuring of budgets to require the
22 use of complete energy- and environmental-cost
23 accounting;

24 (B) using operations expenditures in budg-
25 et-related decisions while simultaneously incor-

porating productivity and health measures (as those measures can be quantified by the Office, with the assistance of universities and national laboratories);

(C) permitting Federal agencies to retain all identified savings accrued as a result of the use of life-cycle costing for future high-performance green building initiatives; and

(D) identifying short- and long-term cost savings that accrue from high-performance green buildings, including those relating to health and productivity;

(6) identifies green, self-sustaining technologies to address the operational needs of Federal facilities in times of national security emergencies, natural disasters, or other dire emergencies;

(7) summarizes and highlights development, at the State and local level, of green building initiatives, including executive orders, policies, or laws adopted promoting green building (including the status of implementation of those initiatives); and

(8) includes, for the 2-year period covered by the report, recommendations to address each of the matters, and a plan for implementation of each rec-

1 ommendation, described in paragraphs (1) through
2 (6).

3 (d) IMPLEMENTATION.—The Office shall carry out
4 each plan for implementation of recommendations under
5 subsection (e)(7).

6 **SEC. 103. GREEN BUILDING ADVISORY COMMITTEE.**

7 (a) ESTABLISHMENT.—Not later than 180 days after
8 the date of enactment of this Act, the Director shall estab-
9 lish a committee to be known as the “Green Building Ad-
10 visory Committee”.

11 (b) MEMBERSHIP.—The Committee shall be com-
12 posed of representatives of, at a minimum—

13 (1) each agency referred to in section
14 102(b)(1); and

15 (2) other relevant entities, as determined by the
16 Director, including at least 1 representative of each
17 of the following:

18 (A) State and local governmental green
19 building programs;

20 (B) Independent green building associa-
21 tions or councils;

22 (C) Building experts, including architects,
23 material suppliers, and construction contrac-
24 tors.

1 ~~(D)~~ Security advisors focusing on national
 2 security needs, natural disasters, and other dire
 3 emergency situations.

4 ~~(E)~~ Children and adult environmental
 5 health experts.

6 ~~(c) MEETINGS.—~~The Director shall establish a reg-
 7 ular schedule of meetings for the Committee, which shall
 8 convene a minimum of 6 times each year.

9 ~~(d) DUTIES.—~~The Committee shall provide advice
 10 and expertise for use by the Director in carrying out the
 11 duties under this Act, including such recommendations re-
 12 lating to Federal activities carried out under sections 104
 13 through 106 as are agreed to by a majority of the mem-
 14 bers of the Committee.

15 ~~(e) FACA EXEMPTION.—~~The Committee shall not be
 16 subject to the Federal Advisory Committee Act (5 U.S.C.
 17 App.).

18 **SEC. 104. PUBLIC OUTREACH.**

19 The Director, in coordination with the Committee,
 20 shall carry out public outreach to inform individuals and
 21 entities of the information and services available Govern-
 22 ment-wide by—

23 ~~(1)~~ establishing and maintaining a national
 24 high-performance green building clearinghouse, in-
 25 cluding on the Internet, that—

1 (A) identifies existing similar efforts and
2 coordinates activities of common interest; and

3 (B) provides information relating to high-
4 performance green buildings, including
5 hyperlinks to Internet sites that describe the ac-
6 tivities, information, and resources of—

7 (i) the Federal Government;

8 (ii) State and local governments;

9 (iii) the private sector (including non-
10 governmental and nonprofit entities and
11 organizations); and

12 (iv) international organizations;

13 (2) identifying and recommending educational
14 resources for implementing high-performance green
15 building practices, including security and emergency
16 benefits and practices;

17 (3) providing access to technical assistance on
18 using tools and resources to make more cost-effec-
19 tive, energy-efficient, health-protective, and environ-
20 mentally beneficial decisions for constructing high-
21 performance green buildings, particularly tools avail-
22 able to conduct life-cycle costing and life-cycle as-
23 sessment;

1 (4) providing information on application proc-
 2 esses for certifying a high-performance green build-
 3 ing; including certification and commissioning;

4 (5) providing technical information; market re-
 5 search; or other forms of assistance or advice that
 6 would be useful in planning and constructing high-
 7 performance green buildings; and

8 (6) using such other methods as are determined
 9 by the Director to be appropriate.

10 **SEC. 105. RESEARCH AND DEVELOPMENT.**

11 (a) ESTABLISHMENT.—The Director, in coordination
 12 with the Committee, shall—

13 (1)(A) survey existing research and studies re-
 14 lating to high-performance green buildings; and

15 (B) coordinate activities of common interest;

16 (2) develop and recommend a high-performance
 17 green building research plan that—

18 (A) identifies information and research
 19 needs; including the relationships between
 20 health, occupant productivity, and each of—

21 (i) pollutant emissions from materials
 22 and products in the building;

23 (ii) natural day lighting;

24 (iii) ventilation choices and tech-
 25 nologies;

1 (iv) heating, cooling, and system con-
 2 trol choices and technologies;

3 (v) moisture control and mold;

4 (vi) maintenance, cleaning, and pest
 5 control activities;

6 (vii) acoustics; and

7 (viii) other issues relating to the
 8 health, comfort, productivity, and perform-
 9 ance of occupants of the building; and

10 (B) promotes the development and dissemi-
 11 nation of high-performance green building
 12 measurement tools that, at a minimum, may be
 13 used—

14 (i) to monitor and assess the life-cycle
 15 performance of facilities (including dem-
 16 onstration projects) built as high-perform-
 17 ance green buildings; and

18 (ii) to perform life-cycle assessments;

19 (3) assist the budget and life-cycle costing func-
 20 tions of the Office under section 106;

21 (4) study and identify potential benefits of
 22 green buildings relating to security, natural disaster,
 23 and emergency needs of the Federal Government;
 24 and

1 ~~(5) support other research initiatives deter-~~
 2 ~~mined by the Office.~~

3 ~~(b) INDOOR AIR QUALITY.—The Director, in con-~~
 4 ~~sultation with the Committee, shall develop and implement~~
 5 ~~a comprehensive indoor air quality program for all Federal~~
 6 ~~facilities to ensure the safety of Federal workers and facil-~~
 7 ~~ity occupants—~~

8 ~~(1) during new construction and renovation of~~
 9 ~~facilities; and~~

10 ~~(2) in existing facilities.~~

11 **SEC. 106. BUDGET AND LIFE-CYCLE COSTING AND CON-**
 12 **TRACTING.**

13 ~~(a) ESTABLISHMENT.—The Director, in coordination~~
 14 ~~with the Committee, shall—~~

15 ~~(1) identify, review, and analyze current budget~~
 16 ~~and contracting practices that affect achievement of~~
 17 ~~high-performance green buildings, including the~~
 18 ~~identification of barriers to green building life-cycle~~
 19 ~~costing and budgetary issues;~~

20 ~~(2) develop guidance and conduct training ses-~~
 21 ~~sions with budget specialists and contracting per-~~
 22 ~~sonnel from Federal agencies and budget examiners~~
 23 ~~to apply life-cycle cost criteria to actual projects;~~

24 ~~(3) identify tools to aid life-cycle cost decision-~~
 25 ~~making; and~~

1 (4) explore the feasibility of incorporating the
 2 benefits of green buildings, such as security benefits,
 3 into a cost-budget analysis to aid in life-cycle costing
 4 for budget and decision making processes.

5 **SEC. 107. AUTHORIZATION OF APPROPRIATIONS.**

6 There is authorized to be appropriated to carry out
 7 this title \$4,000,000 for each of fiscal years 2007 through
 8 2012, to remain available until expended.

9 **TITLE II—HEALTHY HIGH-**
 10 **PERFORMANCE SCHOOLS**

11 **SEC. 201. DEFINITIONS.**

12 In this title:

13 (1) ~~HIGH-PERFORMANCE SCHOOL.~~—The term
 14 “high-performance school” has the meaning given
 15 the term “healthy, high-performance school build-
 16 ing” in section 5586 of the Elementary and Sec-
 17 ondary Education Act of 1965 (20 U.S.C. 7277e).

18 (2) ~~LOCAL EDUCATIONAL AGENCY.~~—The term
 19 “local educational agency” has the meaning given
 20 the term in section 9101 of the Elementary and Sec-
 21 ondary Education Act of 1965 (20 U.S.C. 7801).

22 (3) ~~STATE EDUCATIONAL AGENCY.~~—The term
 23 “State educational agency” has the meaning given
 24 the term in section 9101 of the Elementary and Sec-
 25 ondary Education Act of 1965 (20 U.S.C. 7801).

1 **SEC. 202. GRANTS FOR HEALTHY SCHOOL ENVIRONMENTS.**

2 (a) ~~IN GENERAL.~~—The Administrator of the Envi-
3 ronmental Protection Agency, in consultation with the
4 Secretary of Education and the Secretary of Health and
5 Human Services, may provide grants to State and local
6 educational agencies for use in—

7 (1) providing technical assistance for programs
8 of the Environmental Protection Agency (including
9 the Tools for Schools Program and the Healthy
10 School Environmental Assessment Tool) to schools
11 for use in addressing environmental issues; and

12 (2) development of State school environmental
13 quality plans, in partnership with the Environmental
14 Protection Agency, that include—

15 (A) standards for healthy high-perform-
16 ance school building design, construction, and
17 renovation;

18 (B) identification of ongoing school build-
19 ing environmental problems in the State, in-
20 cluding assessment of information on the expo-
21 sure of children to environmental hazards in
22 school facilities, as provided by the Adminis-
23 trator of the Environmental Protection Agency;

24 (C) proposals for the systematic improve-
25 ment (including benchmarks and timelines) of

1 environmental conditions in schools throughout
 2 the State, including—

3 (i) school building siting, construction,
 4 and maintenance;

5 (ii) indoor air quality;

6 (iii) pest control;

7 (iv) radon contamination;

8 (v) lead contamination;

9 (vi) environmentally preferable pur-
 10 chasing of products for classroom instruc-
 11 tion and for maintenance;

12 (vii) hazard identification and remedi-
 13 ation; and

14 (viii) modes of transportation avail-
 15 able to students and staff;

16 (D) recommendations for improvements in
 17 the capacity of the State to track child and
 18 adult health complaints relating to schools; and

19 (E) plans for operation as an emergency,
 20 self-sustaining evacuation center.

21 (b) OTHER GRANTS.—The Administrator of the En-
 22 vironmental Protection Agency may provide grants to
 23 qualified, nonprofit organizations to assist in community
 24 and public education on healthy school environments.

25 (c) COST SHARING.—

1 (1) ~~FEDERAL SHARE.~~—The Federal share of
 2 the cost of a project or activity carried out using
 3 funds from a grant under subsection (a) shall not
 4 exceed 90 percent.

5 (2) ~~NON-FEDERAL SHARE.~~—The non-Federal
 6 share of the cost of a project or activity carried out
 7 using funds from a grant under subsection (a) may
 8 be provided in the form of cash or in-kind goods and
 9 services.

10 ~~(d) GRANT PRIORITY.—~~

11 (1) ~~IN GENERAL.~~—In providing grants under
 12 this section for use in carrying out the program re-
 13 ferred to in subsection (a)(1), the Administrator of
 14 the Environmental Protection Agency, in consulta-
 15 tion with the Secretary of Education, shall give pri-
 16 ority to school districts with need for environmental
 17 improvement as identified in the school environ-
 18 mental plans described in this section.

19 (2) ~~RESPONSIBILITY OF SCHOOL DISTRICTS~~
 20 ~~AND STATE EDUCATIONAL AGENCIES.—~~

21 ~~(A) SCHOOL DISTRICTS.~~—Not later than 2
 22 years after the date of enactment of this Act,
 23 and annually thereafter, each school district
 24 that receives funds from the Administrator of
 25 the Environmental Protection Agency to carry

1 out a program described in subsection (a) shall
2 submit to the State educational agency with ju-
3 risdiction over the school district a report that
4 includes—

5 (i) a list of schools in the districts
6 that, as of the date of the report, have ac-
7 cepted funds or other assistance from the
8 Environmental Protection Agency for use
9 in carrying out this section; and

10 (ii) an overview of the impact of the
11 funds, including—

12 (I) general data regarding meas-
13 ures of student health and attendance
14 rates before and after grant interven-
15 tion; and

16 (II) descriptions of toxic or haz-
17 ardous cleaning, maintenance, or in-
18 structional products eliminated or re-
19 duced in use as part of the promotion
20 or remediation of the indoor air qual-
21 ity of schools within the school dis-
22 trict; and

23 (iii) basic information on the potential
24 influence of other factors (such as the in-

1 stallation of carpet and HVAC systems
2 and similar activities) on air quality.

3 (B) STATE EDUCATIONAL AGENCY RE-
4 PORTS.—Not later than 180 days after the date
5 on which each State educational agency has re-
6 ceived the annual reports under subparagraph
7 (A) from all participating school districts, the
8 State educational agency shall submit to the
9 Administrator of the Environmental Protection
10 Agency and Congress a consolidated report of
11 all information received from the school dis-
12 tricts.

13 **SEC. 203. FEDERAL GUIDELINES FOR SITING OF SCHOOL**
14 **FACILITIES.**

15 The Administrator of the Environmental Protection
16 Agency, in consultation with the Secretary of Education
17 and the Secretary of Health and Human Services, shall
18 develop school site selection guidelines that account for—

19 (1) the special vulnerability of children to haz-
20 ardous substances or pollution exposures in any case
21 in which the potential for contamination at a poten-
22 tial school site exists, as determined by the Adminis-
23 trator of the Environmental Protection Agency, in
24 consultation with the Secretary of Education;

1 (2) modes of transportation available to stu-
2 dents and staff; and

3 (3) the potential use of a school at the site as
4 an emergency shelter.

5 **SEC. 204. ENVIRONMENTAL HEALTH PROGRAM.**

6 (a) ~~IN GENERAL.~~—The Administrator of the Envi-
7 ronmental Protection Agency, in consultation with the
8 Secretary of Education, the Secretary of Health and
9 Human Services, and other relevant agencies, shall issue
10 guidelines for use by the State in developing and imple-
11 menting an environmental health program for schools
12 that—

13 (1) takes into account the status and findings
14 of Federal research initiatives established under this
15 Act and other relevant Federal law with respect to
16 school facilities, including relevant updates on trends
17 in the field, such as the impact of school facility en-
18 vironments on student and staff—

19 (A) health, safety, and productivity; and

20 (B) disabilities or special needs;

21 (2) provides research using relevant tools iden-
22 tified or developed in accordance with section 105 to
23 quantify the relationships between—

24 (A) human health, occupant productivity,

25 and student performance; and

1 (B) with respect to school facilities, each
2 of—

3 (i) pollutant emissions from materials
4 and products;

5 (ii) natural day lighting;

6 (iii) ventilation choices and tech-
7 nologies;

8 (iv) heating and cooling choices and
9 technologies;

10 (v) moisture control and mold;

11 (vi) maintenance, cleaning, and pest
12 control activities;

13 (vii) acoustics; and

14 (viii) other issues relating to the
15 health, comfort, productivity, and perform-
16 ance of occupants of the school facilities;

17 (3) provides technical assistance on siting, de-
18 sign, management, and operation of school facilities,
19 including facilities used by students with disabilities
20 or special needs;

21 (4) collaborates with federally funded pediatric
22 environmental health centers to assist in on-site
23 school environmental investigations;

1 ~~(5)~~ assists States and the public in better un-
 2 derstanding and improving the environmental health
 3 of children; and

4 ~~(6)~~ provides to the Office a biennial report of
 5 all activities carried out under this title; which the
 6 Director shall include in the report described in sec-
 7 tion ~~102(c)~~.

8 ~~(b)~~ PUBLIC OUTREACH.—The Director shall ensure,
 9 to the maximum extent practicable, that the public clear-
 10 inghouse established under section ~~104~~ receives and makes
 11 available—

12 ~~(1)~~ information from the Administrator of the
 13 Environmental Protection Agency that is contained
 14 in the report described in subsection ~~(a)(6)~~; and

15 ~~(2)~~ information on the exposure of children to
 16 environmental hazards in school facilities; as pro-
 17 vided by the Administrator of the Environmental
 18 Protection Agency.

19 **SEC. 205. AUTHORIZATION OF APPROPRIATIONS.**

20 There is authorized to be appropriated to carry out
 21 this title \$10,000,000 for the period of fiscal years 2007
 22 through 2012, to remain available until expended.

1 **TITLE III—STRENGTHENING**
2 **FEDERAL LEADERSHIP**

3 **SEC. 301. INCENTIVES.**

4 As soon as practicable after the date of enactment
5 of this Act, the Director shall identify incentives to encour-
6 age the use of green buildings and related technology in
7 the operations of the Federal Government, including
8 through—

9 (1) the provision of recognition awards; and

10 (2) the maximum feasible retention of financial
11 savings in the annual budgets of Federal agencies
12 for use in reinvesting in future green building initia-
13 tives.

14 **SEC. 302. FEDERAL PROCUREMENT.**

15 (a) IN GENERAL.—Not later than 2 years after the
16 date of enactment of this Act, the Director of the Office
17 of Federal Procurement Policy, in consultation with the
18 Director and the Under Secretary of Defense for Acquisi-
19 tion, Technology, and Logistics, shall promulgate revisions
20 of the applicable acquisition regulations, to take effect as
21 of the date of promulgation of the revisions—

22 (1) to direct any Federal procurement execu-
23 tives involved in the acquisition, construction, or
24 major renovation (including contracting for the con-
25 struction or major renovation) of any facility—

1 (A) to employ integrated design principles;

2 (B) to improve site selection for environ-
3 mental and community benefits;

4 (C) to optimize building and systems en-
5 ergy performance;

6 (D) to protect and conserve water;

7 (E) to enhance indoor environmental qual-
8 ity; and

9 (F) to reduce environmental impacts of
10 materials and waste flows; and

11 (2) to direct Federal procurement executives in-
12 volved in leasing buildings; to give preference to the
13 lease of facilities that—

14 (A) are energy-efficient; and

15 (B) to the maximum extent practicable;
16 have applied contemporary high-performance
17 and sustainable design principles during con-
18 struction or renovation.

19 (b) GUIDANCE.—Not later than 90 days after the
20 date of promulgation of the revised regulations under sub-
21 section (a), the Director shall issue guidance to all Federal
22 procurement executives providing direction and instruc-
23 tions to renegotiate the design of proposed facilities; ren-
24 ovations for existing facilities; and leased facilities to in-

1 corporate improvements that are consistent with this sec-
 2 tion.

3 **SEC. 303. FEDERAL GREEN BUILDING PERFORMANCE.**

4 (a) ~~IN GENERAL.~~—Not later than October 31 of each
 5 of the 2 fiscal years following the fiscal year in which this
 6 Act is enacted, and at such times thereafter as the Comp-
 7 troller General of the United States determines to be ap-
 8 propriate, the Comptroller General of the United States
 9 shall, with respect to the fiscal years that have passed
 10 since the preceding report—

11 (1) conduct an audit of the implementation of
 12 this Act; and

13 (2) submit to the Office, the Committee, the
 14 Administrator, and Congress a report describing the
 15 results of the audit.

16 (b) ~~CONTENTS.~~—An audit under subsection (a) shall
 17 include a review, with respect to the period covered by the
 18 report under subsection (a)(2), of—

19 (1) budget, life-cycle costing, and contracting
 20 issues, using best practices identified by the Comp-
 21 troller General of the United States and heads of
 22 other agencies in accordance with section 106;

23 (2) the level of coordination among the Office,
 24 the Office of Management and Budget, and relevant
 25 agencies;

1 (3) the performance of the Office in carrying
2 out the implementation plan;

3 (4) the design stage of high-performance green
4 building measures;

5 (5) high-performance building data that were
6 collected and reported to the Office; and

7 (6) such other matters as the Comptroller Gen-
8 eral of the United States determines to be appro-
9 priate.

10 (c) **CONSULTATION.**—The Director shall consult with
11 the Committee to enhance and assist the implementation
12 of the Environmental Stewardship Scorecard announced
13 at the White House Summit on Federal sustainable build-
14 ings in January 2006, to measure the implementation by
15 each Federal agency of sustainable design and green
16 building initiatives.

17 **TITLE IV—DEMONSTRATION** 18 **PROJECT**

19 **SEC. 401. COORDINATION OF GOALS.**

20 (a) **IN GENERAL.**—The Director shall establish
21 guidelines to implement a demonstration project to con-
22 tribute to the research goals of the Office.

23 (b) **PROJECTS.**—In accordance with guidelines estab-
24 lished by the Director under subsection (a) and the duties

1 of the Director described in title I, the Director shall carry
 2 out—

3 ~~(1) for each of fiscal years 2008 through 2013,~~
 4 ~~1 demonstration project in a Federal building se-~~
 5 ~~lected by the Director in accordance with relevant~~
 6 ~~agencies and described in subsection (e)(1), that—~~

7 ~~(A) provides for the evaluation of the in-~~
 8 ~~formation obtained through the conduct of~~
 9 ~~projects and activities under this Act; and~~

10 ~~(B) achieves a platinum rating, as defined~~
 11 ~~by the Leadership in Energy and Environ-~~
 12 ~~mental Design Building Rating System stand-~~
 13 ~~ard established by the United States Green~~
 14 ~~Building Council (or equivalent rating); and~~

15 ~~(2) no fewer than 4 demonstration projects at~~
 16 ~~4 universities, that, as competitively selected by the~~
 17 ~~Director in accordance with subsection (e)(2),~~
 18 ~~have—~~

19 ~~(A) appropriate research resources and rel-~~
 20 ~~evant projects to meet the goals of the dem-~~
 21 ~~onstration project established by the Office; and~~

22 ~~(B) the ability—~~

23 ~~(i) to serve as a model for high-per-~~
 24 ~~formance green building initiatives, includ-~~
 25 ~~ing research and education;~~

1 (ii) to identify the most effective ways
 2 to use high-performance green building
 3 and landscape technologies to engage and
 4 educate undergraduate and graduate stu-
 5 dents;

6 (iii) to effectively implement a high-
 7 performance green building education pro-
 8 gram for students and occupants;

9 (iv) to demonstrate the effectiveness
 10 of various high-performance technologies in
 11 each of the 4 climatic regions of the
 12 United States described in subsection
 13 (c)(2)(B); and

14 (v) to explore quantifiable and non-
 15 quantifiable beneficial impacts on public
 16 health and employee and student perform-
 17 ance.

18 (c) CRITERIA.—

19 (1) FEDERAL FACILITIES.—With respect to the
 20 existing or proposed Federal facility at which a dem-
 21 onstration project under this section is conducted,
 22 the Federal facility shall—

23 (A) be an appropriate model for a project
 24 relating to—

1 (i) the effectiveness of high-perform-
2 ance technologies;

3 (ii) analysis of materials, components,
4 systems, and emergency operations in the
5 building, and the impact of those mate-
6 rials, components, and systems, including
7 the impact on the health of building occu-
8 pants;

9 (iii) life-cycle costing and life-cycle as-
10 sessment of building materials and sys-
11 tems; and

12 (iv) location and design that promote
13 access to the Federal facility through walk-
14 ing, biking, and mass transit; and

15 (B) possess sufficient technological and or-
16 ganizational adaptability.

17 (2) UNIVERSITIES.—With respect to the 4 uni-
18 versities at which a demonstration project under this
19 section is conducted—

20 (A) the universities should be selected,
21 after careful review of all applications received
22 containing the required information, as deter-
23 mined by the Director, based on—

1 (i) successful and established public-
2 private research and development partner-
3 ships;

4 (ii) demonstrated capabilities to con-
5 struct or renovate buildings that meet high
6 indoor environmental quality standards;

7 (iii) organizational flexibility;

8 (iv) technological adaptability;

9 (v) the demonstrated capacity of at
10 least 1 university to replicate lessons
11 learned among nearby or sister univer-
12 sities, preferably by participation in groups
13 or consortia that promote sustainability;

14 (vi) the demonstrated capacity of at
15 least 1 university to have officially-adopt-
16 ed, institution-wide “green building” guide-
17 lines for all campus building projects; and

18 (vii) the demonstrated capacity of at
19 least 1 university to have been recognized
20 by similar institutions as a national leader
21 in sustainability education and curriculum
22 for students of the university; and

23 (B) each university shall be located in a
24 different climatic region of the United States;

1 each of which regions shall have, as determined
 2 by the Office—

3 (i) a hot, dry climate;

4 (ii) a hot, humid climate;

5 (iii) a cold climate; or

6 (iv) a temperate climate (including a
 7 climate with cold winters and humid sum-
 8 mers).

9 (d) REPORT.—Not later than 1 year after the date
 10 of enactment of this Act, and annually thereafter through
 11 September 30, 2013—

12 (1) the Director shall submit to the Adminis-
 13 trator a report that describes the status of the dem-
 14 onstration projects; and

15 (2) each University at which a demonstration
 16 project under this section is conducted shall submit
 17 to the Administrator a report that describes the sta-
 18 tus of the demonstration projects under this section.

19 **SEC. 402. AUTHORIZATION OF APPROPRIATIONS.**

20 (a) FEDERAL DEMONSTRATION PROJECT.—There is
 21 authorized to be appropriated to carry out the Federal
 22 demonstration project described in section 401(b)(1)
 23 \$10,000,000 for the period of fiscal years 2008 through
 24 2013, to remain available until expended.

1 ~~(b) UNIVERSITY DEMONSTRATION PROJECTS.—~~

2 There is authorized to be appropriated to carry out the

3 ~~university demonstration projects described in section~~

4 ~~401(b)(2) \$10,000,000 for the period of fiscal years 2008~~

5 ~~through 2013, to remain available until expended.~~

6 **SECTION 1. SHORT TITLE; TABLE OF CONTENTS.**

7 (a) *SHORT TITLE.*—*This Act may be cited as the*

8 *“High-Performance Green Buildings Act of 2006”.*

9 (b) *TABLE OF CONTENTS.*—*The table of contents of this*

10 *Act is as follows:*

Sec. 1. Short title; table of contents.

Sec. 2. Definitions.

TITLE I—OFFICE OF HIGH-PERFORMANCE GREEN BUILDINGS

Sec. 101. Oversight.

Sec. 102. Office of High-Performance Green Buildings.

Sec. 103. Green Building Advisory Committee.

Sec. 104. Public outreach.

Sec. 105. Research and development.

Sec. 106. Budget and life-cycle costing and contracting.

Sec. 107. Authorization of appropriations.

TITLE II—HEALTHY HIGH-PERFORMANCE SCHOOLS

Sec. 201. Definition of high-performance school.

Sec. 202. Grants for healthy school environments.

Sec. 203. Model guidelines for siting of school facilities.

Sec. 204. Public outreach.

Sec. 205. Authorization of appropriations.

TITLE III—STRENGTHENING FEDERAL LEADERSHIP

Sec. 301. Incentives.

Sec. 302. Federal procurement.

Sec. 303. Federal green building performance.

TITLE IV—DEMONSTRATION PROJECT

Sec. 401. Coordination of goals.

Sec. 402. Authorization of appropriations.

11 **SEC. 2. DEFINITIONS.**

12 *In this Act:*

1 (1) *ADMINISTRATOR.*—*The term “Adminis-*
 2 *trator” means the Administrator of General Services.*

3 (2) *COMMITTEE.*—*The term “Committee” means*
 4 *the Green Building Advisory Committee established*
 5 *under section 103(a).*

6 (3) *DIRECTOR.*—*The term “Director” means the*
 7 *individual appointed to the position established under*
 8 *section 101(a).*

9 (4) *FEDERAL FACILITY.*—

10 (A) *IN GENERAL.*—*The term “Federal facil-*
 11 *ity” means any building or facility the intended*
 12 *use of which requires the building or facility to*
 13 *be—*

14 (i) *accessible to the public; and*

15 (ii) *constructed or altered by or on be-*
 16 *half of the United States.*

17 (B) *EXCLUSIONS.*—*The term “Federal facil-*
 18 *ity” does not include a privately-owned residen-*
 19 *tial or commercial structure that is not leased by*
 20 *the Federal Government.*

21 (5) *HIGH-PERFORMANCE GREEN BUILDING.*—*The*
 22 *term “high-performance green building” means a*
 23 *building—*

24 (A) *that, during its life-cycle—*

1 (i) reduces energy, water, and material
2 resource use and the generation of waste;

3 (ii) improves indoor environmental
4 quality, including protecting indoor air
5 quality during construction, using low-
6 emitting materials, improving thermal com-
7 fort, and improving lighting and acoustic
8 environments that affect occupant health
9 and productivity;

10 (iii) improves indoor and outdoor im-
11 pacts of the building on human health and
12 the environment;

13 (iv) increases the use of environ-
14 mentally preferable products, including
15 biobased, recycled content, and nontoxic
16 products with lower life-cycle impacts;

17 (v) increases reuse and recycling op-
18 portunities; and

19 (vi) integrates systems in the building;
20 and

21 (B) for which, during its planning, design,
22 and construction, the environmental and energy
23 impacts of building location and site design are
24 considered.

1 (6) *LIFE CYCLE*.—The term “life cycle”, with re-
 2 spect to a high-performance green building, means all
 3 stages of the useful life of the building (including com-
 4 ponents, equipment, systems, and controls of the
 5 building) beginning at conception of a green building
 6 project and continuing through site selection, design,
 7 construction, landscaping, commissioning, operation,
 8 maintenance, renovation, deconstruction or demoli-
 9 tion, removal, and recycling of the green building.

10 (7) *LIFE-CYCLE ASSESSMENT*.—The term “life-
 11 cycle assessment” means a comprehensive system ap-
 12 proach for measuring the environmental performance
 13 of a product or service over the life of the product or
 14 service, beginning at raw materials acquisition and
 15 continuing through manufacturing, transportation,
 16 installation, use, reuse, and end-of-life waste manage-
 17 ment.

18 (8) *LIFE-CYCLE COSTING*.—The term “life-cycle
 19 costing”, with respect to a high-performance green
 20 building, means a technique of economic evaluation
 21 that—

22 (A) sums, over a given study period, the
 23 costs of initial investment (less resale value), re-
 24 placements, operations (including energy use),

1 *and maintenance and repair of an investment*
 2 *decision; and*

3 *(B) is expressed—*

4 *(i) in present value terms, in the case*
 5 *of a study period equivalent to the longest*
 6 *useful life of the building, determined by*
 7 *taking into consideration the typical life of*
 8 *such a building in the area in which the*
 9 *building is to be located; or*

10 *(ii) in annual value terms, in the case*
 11 *of any other study period.*

12 (9) *OFFICE.*—*The term “Office” means the Office*
 13 *of High-Performance Green Buildings established*
 14 *under section 102(a).*

15 ***TITLE I—OFFICE OF HIGH-PER-***
 16 ***FORMANCE GREEN BUILD-***
 17 ***INGS***

18 ***SEC. 101. OVERSIGHT.***

19 (a) *IN GENERAL.*—*The Administrator shall establish*
 20 *within the General Services Administration, and appoint*
 21 *an individual to serve as Director in, a position in the ca-*
 22 *reer-reserved Senior Executive service, to—*

23 (1) *establish and manage the Office in accord-*
 24 *ance with section 102; and*

1 (2) *carry out other duties as required under this*
 2 *Act.*

3 (b) *COMPENSATION.*—*The compensation of the Direc-*
 4 *tor shall not exceed the maximum rate of basic pay for the*
 5 *Senior Executive Service under section 5382 of title 5,*
 6 *United States Code, including any applicable locality-based*
 7 *comparability payment that may be authorized under sec-*
 8 *tion 5304(h)(2)(C) of that title.*

9 **SEC. 102. OFFICE OF HIGH-PERFORMANCE GREEN BUILD-**
 10 **INGS.**

11 (a) *ESTABLISHMENT.*—*The Director shall establish*
 12 *within the General Services Administration an Office of*
 13 *High-Performance Green Buildings.*

14 (b) *DUTIES.*—*The Director shall—*

15 (1) *ensure full coordination of high-performance*
 16 *green building information and activities within the*
 17 *General Services Administration and all relevant*
 18 *Federal agencies, including, at a minimum—*

19 (A) *the Environmental Protection Agency;*

20 (B) *the Office of the Federal Environmental*
 21 *Executive;*

22 (C) *the Office of Federal Procurement Pol-*
 23 *icy;*

24 (D) *the Department of Energy;*

1 (E) the Department of Health and Human
2 Services;

3 (F) the Department of Defense; and

4 (G) such other Federal agencies as the Di-
5 rector considers to be appropriate;

6 (2) establish a senior-level green building advi-
7 sory committee, which shall provide advice and rec-
8 ommendations in accordance with section 103;

9 (3) identify and biennially reassess improved or
10 higher rating standards recommended by the Com-
11 mittee;

12 (4) establish a national high-performance green
13 building clearinghouse in accordance with section
14 104, which shall provide green building information
15 through—

16 (A) outreach;

17 (B) education; and

18 (C) the provision of technical assistance;

19 (5) ensure full coordination of research and de-
20 velopment information relating to high-performance
21 green building initiatives under section 105;

22 (6) identify and develop green building stand-
23 ards that could be used for all types of Federal facili-
24 ties in accordance with section 105;

1 (7) *establish green practices that can be used*
 2 *throughout the life of a Federal facility;*

3 (8) *review and analyze current Federal budget*
 4 *practices and life-cycle costing issues, and make rec-*
 5 *ommendations to Congress, in accordance with section*
 6 *106; and*

7 (9) *complete and submit the report described in*
 8 *subsection (c).*

9 (c) *REPORT.*—*Not later than 2 years after the date of*
 10 *enactment of this Act, and biennially thereafter, the Direc-*
 11 *tor shall submit to Congress a report that—*

12 (1) *describes the status of the green building ini-*
 13 *tiatives under this Act and other Federal programs in*
 14 *effect as of the date of the report, including—*

15 (A) *the extent to which the programs are*
 16 *being carried out in accordance with this Act;*
 17 *and*

18 (B) *the status of funding requests and ap-*
 19 *propriations for those programs;*

20 (2) *identifies within the planning, budgeting,*
 21 *and construction process all types of Federal facility*
 22 *procedures that inhibit new and existing Federal fa-*
 23 *cilities from becoming high-performance green build-*
 24 *ings as measured by—*

1 (A) a silver rating, as defined by the Lead-
 2 ership in Energy and Environmental Design
 3 Building Rating System standard established by
 4 the United States Green Building Council (or an
 5 equivalent rating obtained through a comparable
 6 system); or

7 (B) an improved or higher rating standard,
 8 as identified by the Committee;

9 (3) identifies inconsistencies, as reported to the
 10 Committee, in Federal law with respect to product ac-
 11 quisition guidelines and high-performance product
 12 guidelines;

13 (4) recommends language for uniform standards
 14 for use by Federal agencies in environmentally re-
 15 sponsible acquisition;

16 (5) in coordination with the Office of Manage-
 17 ment and Budget, reviews the budget process for cap-
 18 ital programs with respect to alternatives for—

19 (A) restructuring of budgets to recommend
 20 the use of complete energy- and environmental-
 21 cost accounting;

22 (B) using operations expenditures in budg-
 23 et-related decisions while simultaneously incor-
 24 porating productivity and health measures (as
 25 those measures can be quantified by the Office,

1 *with the assistance of universities and national*
2 *laboratories);*

3 *(C) permitting Federal agencies to retain*
4 *all identified savings accrued as a result of the*
5 *use of life cycle costing; and*

6 *(D) identifying short- and long-term cost*
7 *savings that accrue from high-performance green*
8 *buildings, including those relating to health and*
9 *productivity;*

10 *(6) identifies green, self-sustaining technologies*
11 *to address the operational needs of Federal facilities*
12 *in times of national security emergencies, natural dis-*
13 *asters, or other dire emergencies;*

14 *(7) summarizes and highlights development, at*
15 *the State and local level, of green building initiatives,*
16 *including Executive orders, policies, or laws adopted*
17 *promoting green building (including the status of im-*
18 *plementation of those initiatives); and*

19 *(8) includes, for the 2-year period covered by the*
20 *report, recommendations to address each of the mat-*
21 *ters, and a plan for implementation of each rec-*
22 *ommendation, described in paragraphs (1) through*
23 *(6).*

1 (d) *IMPLEMENTATION.*—*The Office shall carry out*
 2 *each plan for implementation of recommendations under*
 3 *subsection (c)(7).*

4 **SEC. 103. GREEN BUILDING ADVISORY COMMITTEE.**

5 (a) *ESTABLISHMENT.*—*Not later than 180 days after*
 6 *the date of enactment of this Act, the Director shall establish*
 7 *an advisory committee, to be known as the “Green Building*
 8 *Advisory Committee”.*

9 (b) *MEMBERSHIP.*—

10 (1) *IN GENERAL.*—*The Committee shall be com-*
 11 *posed of representatives of, at a minimum—*

12 (A) *each agency referred to in section*
 13 *102(b)(1); and*

14 (B) *other relevant agencies and entities, as*
 15 *determined by the Director, including at least 1*
 16 *representative of each of—*

17 (i) *State and local governmental green*
 18 *building programs;*

19 (ii) *independent green building asso-*
 20 *ciations or councils;*

21 (iii) *building experts, including archi-*
 22 *tects, material suppliers, and construction*
 23 *contractors;*

1 (iv) security advisors focusing on na-
 2 tional security needs, natural disasters, and
 3 other dire emergency situations; and

4 (v) environmental health experts, in-
 5 cluding those with experience in children's
 6 health.

7 (2) *NON-FEDERAL MEMBERS.*—The total number
 8 of non-Federal members on the Committee at any
 9 time shall not exceed 15.

10 (c) *MEETINGS.*—The Director shall establish a regular
 11 schedule of meetings for the Committee.

12 (d) *DUTIES.*—The Committee shall provide advice and
 13 expertise for use by the Director in carrying out the duties
 14 under this Act, including such recommendations relating
 15 to Federal activities carried out under sections 104 through
 16 106 as are agreed to by a majority of the members of the
 17 Committee.

18 (e) *FACA EXEMPTION.*—The Committee shall not be
 19 subject to section 14 of the Federal Advisory Committee Act
 20 (5 U.S.C. App.).

21 **SEC. 104. PUBLIC OUTREACH.**

22 The Director, in coordination with the Committee,
 23 shall carry out public outreach to inform individuals and
 24 entities of the information and services available Govern-
 25 ment-wide by—

1 (1) *establishing and maintaining a national*
 2 *high-performance green building clearinghouse, in-*
 3 *cluding on the Internet, that—*

4 (A) *identifies existing similar efforts and*
 5 *coordinates activities of common interest; and*

6 (B) *provides information relating to high-*
 7 *performance green buildings, including*
 8 *hyperlinks to Internet sites that describe related*
 9 *activities, information, and resources of—*

10 (i) *the Federal Government;*

11 (ii) *State and local governments;*

12 (iii) *the private sector (including non-*
 13 *governmental and nonprofit entities and or-*
 14 *ganizations); and*

15 (iv) *other relevant organizations, in-*
 16 *cluding those from other countries;*

17 (2) *identifying and recommending educational*
 18 *resources for implementing high-performance green*
 19 *building practices, including security and emergency*
 20 *benefits and practices;*

21 (3) *providing access to technical assistance on*
 22 *using tools and resources to make more cost-effective,*
 23 *energy-efficient, health-protective, and environ-*
 24 *mentally beneficial decisions for constructing high-*

1 *performance green buildings, including tools available*
 2 *to conduct life-cycle costing and life-cycle assessment;*

3 *(4) providing information on application proc-*
 4 *esses for certifying a high-performance green building,*
 5 *including certification and commissioning;*

6 *(5) providing technical information, market re-*
 7 *search, or other forms of assistance or advice that*
 8 *would be useful in planning and constructing high-*
 9 *performance green buildings; and*

10 *(6) using such other methods as are determined*
 11 *by the Director to be appropriate.*

12 **SEC. 105. RESEARCH AND DEVELOPMENT.**

13 *The Director, in coordination with the Committee,*
 14 *shall—*

15 *(1)(A) survey existing research and studies relat-*
 16 *ing to high-performance green buildings; and*

17 *(B) coordinate activities of common interest;*

18 *(2) develop and recommend a high-performance*
 19 *green building research plan that—*

20 *(A) identifies information and research*
 21 *needs, including the relationships between*
 22 *human health, occupant productivity, and each*
 23 *of—*

24 *(i) emissions from materials and prod-*
 25 *ucts in the building;*

- 1 (ii) *natural day lighting;*
- 2 (iii) *ventilation choices and tech-*
- 3 *nologies;*
- 4 (iv) *heating, cooling, and system con-*
- 5 *trol choices and technologies;*
- 6 (v) *moisture control and mold;*
- 7 (vi) *maintenance, cleaning, and pest*
- 8 *control activities;*
- 9 (vii) *acoustics; and*
- 10 (viii) *other issues relating to the*
- 11 *health, comfort, productivity, and perform-*
- 12 *ance of occupants of the building; and*
- 13 (B) *promotes the development and dissemi-*
- 14 *nation of high-performance green building meas-*
- 15 *urement tools that, at a minimum, may be*
- 16 *used—*
- 17 (i) *to monitor and assess the life-cycle*
- 18 *performance of facilities (including dem-*
- 19 *onstration projects) built as high-perform-*
- 20 *ance green buildings; and*
- 21 (ii) *to perform life-cycle assessments;*
- 22 (3) *assist the budget and life-cycle costing func-*
- 23 *tions of the Office under section 106;*

1 (4) *study and identify potential benefits of green*
 2 *buildings relating to security, natural disaster, and*
 3 *emergency needs of the Federal Government; and*

4 (5) *support other research initiatives determined*
 5 *by the Office.*

6 **SEC. 106. BUDGET AND LIFE-CYCLE COSTING AND CON-**
 7 **TRACTING.**

8 (a) *ESTABLISHMENT.*—*The Director, in coordination*
 9 *with the Committee, shall—*

10 (1) *identify, review, and analyze current budget*
 11 *and contracting practices that affect achievement of*
 12 *high-performance green buildings, including the iden-*
 13 *tification of barriers to green building life-cycle cost-*
 14 *ing and budgetary issues;*

15 (2) *develop guidance and conduct training ses-*
 16 *sions with budget specialists and contracting per-*
 17 *sonnel from Federal agencies and budget examiners to*
 18 *apply life-cycle cost criteria to actual projects;*

19 (3) *identify tools to aid life-cycle cost decision-*
 20 *making; and*

21 (4) *explore the feasibility of incorporating the*
 22 *benefits of green buildings, such as security benefits,*
 23 *into a cost-budget analysis to aid in life-cycle costing*
 24 *for budget and decision making processes.*

1 **SEC. 107. AUTHORIZATION OF APPROPRIATIONS.**

2 *There is authorized to be appropriated to carry out*
 3 *this title \$3,000,000 for each of fiscal years 2008 through*
 4 *2012, to remain available until expended.*

5 **TITLE II—HEALTHY HIGH-**
 6 **PERFORMANCE SCHOOLS**

7 **SEC. 201. DEFINITION OF HIGH-PERFORMANCE SCHOOL.**

8 *In this title, the term “high-performance school” has*
 9 *the meaning given the term “healthy, high-performance*
 10 *school building” in section 5586 of the Elementary and Sec-*
 11 *ondary Education Act of 1965 (20 U.S.C. 7277e).*

12 **SEC. 202. GRANTS FOR HEALTHY SCHOOL ENVIRONMENTS.**

13 *The Administrator of the Environmental Protection*
 14 *Agency, in consultation with the Secretary of Education,*
 15 *may provide grants to qualified State agencies for use in—*

16 *(1) providing technical assistance for programs*
 17 *of the Environmental Protection Agency (including*
 18 *the Tools for Schools Program and the Healthy School*
 19 *Environmental Assessment Tool) to schools for use in*
 20 *addressing environmental issues; and*

21 *(2) development of State school environmental*
 22 *quality plans that include—*

23 *(A) standards for school building design,*
 24 *construction, and renovation; and*

25 *(B) identification of ongoing school building*
 26 *environmental problems in the State and rec-*

1 *ommended solutions to address those problems,*
 2 *including assessment of information on the expo-*
 3 *sure of children to environmental hazards in*
 4 *school facilities.*

5 **SEC. 203. MODEL GUIDELINES FOR SITING OF SCHOOL FA-**
 6 **CILITIES.**

7 *The Administrator of the Environmental Protection*
 8 *Agency, in consultation with the Secretary of Education*
 9 *and the Secretary of Health and Human Services, shall de-*
 10 *velop school site selection guidelines that account for—*

11 *(1) the special vulnerability of children to haz-*
 12 *ardous substances or pollution exposures in any case*
 13 *in which the potential for contamination at a poten-*
 14 *tial school site exists;*

15 *(2) modes of transportation available to students*
 16 *and staff; and*

17 *(3) the potential use of a school at the site as an*
 18 *emergency shelter.*

19 **SEC. 204. PUBLIC OUTREACH.**

20 *(a) IN GENERAL.—The Administrator of the Environ-*
 21 *mental Protection Agency shall provide to the Director in-*
 22 *formation relating to all activities carried out under this*
 23 *title, which the Director shall include in the report described*
 24 *in section 102(c).*

1 (b) *PUBLIC OUTREACH.*—*The Director shall ensure, to*
 2 *the maximum extent practicable, that the public clearing-*
 3 *house established under section 104 receives and makes*
 4 *available information on the exposure of children to envi-*
 5 *ronmental hazards in school facilities, as provided by the*
 6 *Administrator of the Environmental Protection Agency.*

7 **SEC. 205. AUTHORIZATION OF APPROPRIATIONS.**

8 *There is authorized to be appropriated to carry out*
 9 *this title \$5,000,000 for the period of fiscal years 2008*
 10 *through 2012, to remain available until expended.*

11 **TITLE III—STRENGTHENING**
 12 **FEDERAL LEADERSHIP**

13 **SEC. 301. INCENTIVES.**

14 *As soon as practicable after the date of enactment of*
 15 *this Act, the Director shall identify incentives to encourage*
 16 *the use of green buildings and related technology in the op-*
 17 *erations of the Federal Government, including through—*

- 18 (1) *the provision of recognition awards; and*
 19 (2) *the maximum feasible retention of financial*
 20 *savings in the annual budgets of Federal agencies.*

21 **SEC. 302. FEDERAL PROCUREMENT.**

22 (a) *IN GENERAL.*—*Not later than 2 years after the*
 23 *date of enactment of this Act, the Director of the Office of*
 24 *Federal Procurement Policy, in consultation with the Di-*
 25 *rector and the Under Secretary of Defense for Acquisition,*

1 *Technology, and Logistics, shall promulgate revisions of the*
 2 *applicable acquisition regulations, to take effect as of the*
 3 *date of promulgation of the revisions—*

4 *(1) to direct any Federal procurement executives*
 5 *involved in the acquisition, construction, or major*
 6 *renovation (including contracting for the construction*
 7 *or major renovation) of any facility, to the maximum*
 8 *extent practicable—*

9 *(A) to employ integrated design principles;*

10 *(B) to optimize building and systems en-*
 11 *ergy performance;*

12 *(C) to protect and conserve water;*

13 *(D) to enhance indoor environmental qual-*
 14 *ity; and*

15 *(E) to reduce environmental impacts of ma-*
 16 *terials and waste flows; and*

17 *(2) to direct Federal procurement executives in-*
 18 *involved in leasing buildings, to give preference to the*
 19 *lease of facilities that, to the maximum extent prac-*
 20 *ticable—*

21 *(A) are energy-efficient; and*

22 *(B) have applied contemporary high-per-*
 23 *formance and sustainable design principles dur-*
 24 *ing construction or renovation.*

1 (b) *GUIDANCE.*—Not later than 90 days after the date
 2 of promulgation of the revised regulations under subsection
 3 (a), the Director shall issue guidance to all Federal procure-
 4 ment executives providing direction and the option to re-
 5 negotiate the design of proposed facilities, renovations for
 6 existing facilities, and leased facilities to incorporate im-
 7 provements that are consistent with this section.

8 **SEC. 303. FEDERAL GREEN BUILDING PERFORMANCE.**

9 (a) *IN GENERAL.*—Not later than October 31 of each
 10 of the 2 fiscal years following the fiscal year in which this
 11 Act is enacted, and at such times thereafter as the Comp-
 12 troller General of the United States determines to be appro-
 13 priate, the Comptroller General of the United States shall,
 14 with respect to the fiscal years that have passed since the
 15 preceding report—

16 (1) conduct an audit of the implementation of
 17 this Act; and

18 (2) submit to the Office, the Committee, the Ad-
 19 ministrator, and Congress a report describing the re-
 20 sults of the audit.

21 (b) *CONTENTS.*—An audit under subsection (a) shall
 22 include a review, with respect to the period covered by the
 23 report under subsection (a)(2), of—

24 (1) budget, life-cycle costing, and contracting
 25 issues, using best practices identified by the Comp-

1 *troller General of the United States and heads of other*
2 *agencies in accordance with section 106;*

3 *(2) the level of coordination among the Office,*
4 *the Office of Management and Budget, and relevant*
5 *agencies;*

6 *(3) the performance of the Office in carrying out*
7 *the implementation plan;*

8 *(4) the design stage of high-performance green*
9 *building measures;*

10 *(5) high-performance building data that were*
11 *collected and reported to the Office; and*

12 *(6) such other matters as the Comptroller Gen-*
13 *eral of the United States determines to be appro-*
14 *priate.*

15 *(c) ENVIRONMENTAL STEWARDSHIP SCORECARD.—*
16 *The Director shall consult with the Committee to enhance,*
17 *and assist in the implementation of, the Environmental*
18 *Stewardship Scorecard announced at the White House sum-*
19 *mit on Federal sustainable buildings in January 2006, to*
20 *measure the implementation by each Federal agency of sus-*
21 *tainable design and green building initiatives.*

1 ***TITLE IV—DEMONSTRATION***
 2 ***PROJECT***

3 ***SEC. 401. COORDINATION OF GOALS.***

4 (a) *IN GENERAL.*—*The Director shall establish guide-*
 5 *lines to implement a demonstration project to contribute*
 6 *to the research goals of the Office.*

7 (b) *PROJECTS.*—*In accordance with guidelines estab-*
 8 *lished by the Director under subsection (a) and the duties*
 9 *of the Director described in title I, the Director shall carry*
 10 *out a demonstration project, in a Federal building in the*
 11 *State of Vermont in accordance with subsection (c), that—*

12 (1) *provides for the evaluation of the information*
 13 *obtained through the conduct of projects and activities*
 14 *under this Act; and*

15 (2) *achieves a platinum rating, as defined by the*
 16 *Leadership in Energy and Environmental Design*
 17 *Building Rating System standard established by the*
 18 *United States Green Building Council (or an equiva-*
 19 *lent rating obtained through a comparable system).*

20 (c) *CRITERIA.*—*With respect to the existing or pro-*
 21 *posed Federal facility at which a demonstration project*
 22 *under this section is conducted, the Federal facility shall—*

23 (1) *be an appropriate model for a project relat-*
 24 *ing to—*

1 (A) the effectiveness of high-performance
2 technologies;

3 (B) analysis of materials, components, and
4 systems, including the impact on the health of
5 building occupants;

6 (C) life-cycle costing and life-cycle assess-
7 ment of building materials and systems; and

8 (D) location and design that promote access
9 to the Federal facility through walking, biking,
10 and mass transit; and

11 (2) possess sufficient technological and organiza-
12 tional adaptability.

13 (d) *REPORT.*—Not later than 1 year after the date of
14 enactment of this Act, and annually thereafter through Sep-
15 tember 30, 2013, the Director shall submit to the Adminis-
16 trator a report that describes the status of and findings re-
17 garding the demonstration project.

18 **SEC. 402. AUTHORIZATION OF APPROPRIATIONS.**

19 There is authorized to be appropriated to carry out
20 the Federal demonstration project described in section
21 401(b) \$5,000,000 for the period of fiscal years 2008
22 through 2012, to remain available until expended.

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109TH CONGRESS
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S. 3591

[Report No. 109-358]

A BILL

To improve efficiency in the Federal Government through the use of high-performance green buildings, and for other purposes.

NOVEMBER 13, 2006

Reported with an amendment